

What Scientists Funded by the Tobacco Industry Believe About the Hazards of Cigarette Smoking

ABSTRACT

Despite overwhelming evidence documenting the hazards of cigarette smoking, the tobacco industry denies that smoking has been proven to cause disease. The industry professes a desire to clear up the smoking and health "question" and often points to its support of the Council for Tobacco Research (CTR) as evidence of its interest in investigating the health dangers of smoking. This paper presents results of a survey of CTR-funded scientists regarding their beliefs about the health dangers posed by smoking cigarettes. The vast majority of scientists funded by the CTR believe that cigarette smoking is an addiction that causes a wide range of serious, often fatal, diseases. This result suggests that the tobacco industry is unwilling to accept even the opinions of scientists it has deemed worthy of funding. Scientists should consider the ethical implications of accepting funds from the CTR and other tobacco industry-supported institutions. (*Am J Public Health*. 1991;81:894-896)

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Introduction

The US Surgeon General has stated that "smoking represents the most extensively documented cause of disease ever investigated in the history of biomedical research."¹ Despite overwhelming scientific evidence against cigarettes, the tobacco industry continues to assert that controversy, debate, and uncertainty exist among scientists concerning smoking as an important cause of illness.²⁻⁴

In 1972, a confidential memorandum from a Tobacco Institute (TI) vice-president described TI policy as "creating doubt about the health charge without denying it, advocating the public's right to smoke without actually urging them to take up the practice, and encouraging objective scientific research as the only way to resolve the question of the health hazard."⁵ Industry spokespersons often point to the industry's support of the Council for Tobacco Research (CTR) as evidence of corporate interest in obtaining scientific evidence on the "alleged" relationship between tobacco use and disease.³

The CTR, formed in 1954 by cigarette manufacturers, describes its primary mission as support of research into questions of tobacco use and health.⁶ The council awards peer-reviewed research grants to independent scientists who are assured complete scientific freedom in conducting and publishing their studies. Since 1954, the council has provided more than \$150 million for 1,108 original studies by more than 700 scientists.⁶ In 1989, the CTR listed 204 active projects.

We present results of a survey of CTR-funded investigators, which characterizes what the investigators believe regarding the health effects of tobacco.

Methods and Materials

The study population included the principal investigators of research projects funded by the CTR in 1989.⁶ Of 204 investigators listed, 179 were located at universities or institutions in the United

States. This survey was restricted to those working in the United States.

Eligible survey participants were mailed a one-page questionnaire assessing their beliefs about the relation between cigarette smoking and various health complications and asking them to rank the importance of 10 different areas of tobacco research. Respondents were asked about their current and past research on tobacco and their cigarette smoking status. A cover letter stated that we were surveying "scientists who had published studies on smoking and health and/or have received research support from organizations interested in the tobacco and health issue."

Of 179 questionnaires mailed to eligible scientists in July 1990, 13 were returned with an incorrect mailing address. A total of 77 completed questionnaires were returned, which represents a response rate of 46% (77/166). No further attempt was made to elicit response. A comparison of responders and nonresponders revealed no significant differences in academic credentials (PhD vs MD), institutional affiliation (university vs other), or the nature of the CTR-funded project (i.e., a tobacco study vs a nontobacco study).

Results

Respondents were asked to "indicate the degree to which you believe the scientific evidence suggests a causal relationship with cigarette smoking" for

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eight separate health complications. With the exception of bladder cancer, nearly all respondents rated the relationship between smoking and illness as “strong” or “moderate” (Table 1). Only 1 of 77 respondents was a current smoker. Nationally, approximately 29% of adults smoke.⁷

Only 22% of respondents indicated that any of their current or past research focused on the health effects of tobacco use.

Ninety-four percent of respondents agreed with the statement “smoke from someone else’s cigarette is harmful to a nonsmoker”; 91% agreed that most deaths from lung cancer are caused by smoking; and 76 of 77 agreed with the statement “cigarette smoking is addictive” (Table 2).

Rankings of the importance of 10 areas of research on tobacco varied widely (Table 3). Overall, research on preventing tobacco use received the highest ranking, followed by smoking cessation methods.

Discussion

The low response rate is not unusual for a mailed questionnaire survey,⁸ but does potentially limit the generalizability of the findings. The comparison of respondent and nonrespondent characteristics does not suggest any systematic response bias. It is possible that among those not responding to the survey were some who feared retribution from the tobacco industry. Such fear, if it existed, would likely be among those whose views are congruent with the majority of the respondents. It is also possible that those with less scientifically acceptable positions or greater commitment to the tobacco industry were less likely to respond, though it would seem to be in the industry’s interest to have its views represented in such a survey, if possible. For these reasons, we believe the results accurately represent views of scientists funded by the CTR.

The survey shows that most scientists funded by the CTR believe cigarette smoking is an addiction that causes a wide range of serious, often fatal, diseases. This finding conflicts with the tobacco industry’s description of the scientific community as divided on the question and indicates the industry does not accept the opinions even of scientists whose research it funds. Although acknowledging a need for additional investigation of the mechanisms linking smoking and disease, respondents gave the highest priority to re-

Illness/Condition	Strength of Causal Relationship with Cigarette Smoking:			
	Strong %	Moderate %	Slight %	Not Established %
Emphysema	88.9	9.7	-	1.4
Chronic bronchitis	77.1	20.0	1.4	1.4
Heart disease	67.1	27.4	2.7	2.7
Low birth weight	51.6	30.6	12.9	4.8
Lung cancer	93.2	5.4	1.4	—
Cancer of the mouth, throat	76.1	19.4	1.5	3.0
Bladder cancer	24.6	56.1	15.8	28.1
Shorter life expectancy	76.4	16.7	4.2	2.8

Statement	Agree Strongly %	Agree Somewhat %	Disagree Somewhat %	Disagree Strongly %
The smoke from someone else’s cigarette is harmful to a nonsmoker	52.9	41.4	5.7	—
Most deaths from lung cancer are caused by cigarette smoking	66.2	25.4	8.5	—
Cigarette smoking is addictive	83.3	15.3	1.4	—

Research Area	Mean Rank*	Standard Deviation	Percent Ranking Area as Top Priority
Tobacco use prevention	5.4	2.9	19%
Smoking cessation methods	5.2	2.8	14%
Neoplastic diseases	5.1	3.1	21%
Cardiovascular diseases	5.1	2.4	8%
Pregnancy and infant health	4.9	2.3	7%
Nonneoplastic respiratory diseases	4.6	2.3	—
Passive smoking	4.5	2.7	9%
Chemistry, pharmacology, toxicology	3.5	2.8	6%
Tobacco economics and legislation	3.4	3.4	12%
Tobacco advertising	3.4	2.9	4%

*Ranks range from low = 1 to high = 10.

search on tobacco use prevention and cessation. None of CTR’s active research projects relate to these topics. Despite its stated mission to fund research into the etiology of diseases “alleged” to be related to tobacco use, only 1 in 6 CTR-funded scientists reported conducting research focused on the health effects of tobacco.

We suggest that rather than sponsoring a genuine “program of research into questions of tobacco use and health”⁶ the CTR is a public relations vehicle intended to foster a false impression that cigarette manu-

facturers are interested in investigating the smoking and health “question.” We believe such misuse of science raises serious ethical questions for scientists who accept funding through CTR or similar industry-supported entities. Even assuming that adequate funding is not available elsewhere, tobacco industry-supported scientists must ask themselves whether the value of their research in expanding the body of biomedical knowledge outweighs its utility in furthering the corporate interests of a business which kills 434,000 Americans every year.⁹ □

References

1. *The Health Benefits of Smoking Cessation*. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. DHHS Publication No. (CDC) 90-8416, 1990.
2. Resnik R. Where we stand. *Philip Morris Magazine*. September/October 1990; 39.
3. Warner KE. *Selling smoke: cigarette advertising and public health*. Washington, DC: American Public Health Association; 1986.
4. RJR ordered by FTC to show cause in Mr. FIT case. *Mealey's litigation reports: Tobacco*. April 1989; 4(4):7-8.
5. Cowley G. Science and the cigarette. *Newsweek*. April 1, 1988: 66-67.
6. *1989 Report of the Council for Tobacco Research—U.S.A., Inc.* New York: The Council for Tobacco Research—USA Inc; 1990.
7. *Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General*. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, DHHS Publication No. (CDC) 89-8411, January 1989.
8. Dillman DA. *Mail and Telephone Surveys: The Design Method*. New York: John Wiley & Sons Inc; 1978.
9. Schultz JM. Smoking-attributable mortality and years of potential life lost—United States, 1988. *MMWR*. 1991; 40(4):62-71.

Gun-Related Deaths Increase Further for Black and White Young Men

The Department of Health and Human Services (HHS) reported today that one out of five deaths of teens and young adults in 1988 was gun related. Among young Black males, close to half of all deaths were firearm related.

Researchers at HHS' National Center for Health Statistics said the firearm-related death rate among Black and White males aged 15 to 24 years had declined in the early 1980s, but then rapidly increased from 1984 to 1988, especially for teenagers and particularly among Black males. Between 1984 and 1988, the firearm death rate among teenagers increased by over 40%, rising 20% from 1987 to 1988 alone, and reaching its highest level to date, 17.7 deaths per 100,000.

"This study shows that for the first time, the firearm death rates for both White and Black male teenagers exceeded the mortality from all natural causes of death," said HHS Secretary Louis W. Sullivan, MD. "For young Black males in particular, the excessive firearm and homicide death rates are appalling and heart-rending.

For Black males aged 15 to 19 years, the firearm death rate and firearm homicide rate more than doubled from 1984 to

1988, with an increase of 38% from 1987 to 1988 alone. By contrast, the nonfirearm homicide rate remained relatively stable. Black male teenagers were almost three times as likely to die from gun-related deaths than from all natural causes of death. For White males 15 to 19 years, the firearm death rate in 1988 for the first time exceeded that of natural causes, by 11%.

HHS Assistant Secretary for Health James O. Mason, MD, who heads the US Public Health Service, said, "The statistics show an American epidemic—without parallel in any other industrialized nation of the world. Physicians and other citizens need to work together to devise the same kinds of educational and prevention techniques that we use to attack other epidemics."

The findings are contained in a study, "Firearm Mortality Among Children, Youth and Young Adults, 1979-1988," produced by NCHS, a part of the Centers for Disease Control. The study examines homicide, suicide, and unintentional firearm deaths among those aged 1 to 34 years.